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EXAMINER	
LAMB, CODY W	

ART UNIT	PAPER NUMBER
2613	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/563,494	BJORNSTAD, STEINAR
	Examiner	**Art Unit**
	Cody W. Lamb	2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 10-31* is/are rejected.

7)☒ Claim(s) *9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 January 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *02/06/2006*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because Figure 8 reads "Figur 8" instead of "Figure 8". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: page 1, line 7 reads “types of communicational networks”, page 1, line 11 reads “complecity" instead of complexity, page 1, line 25, reads "ingreasing" instead of increasing.

Claim Objections

3. Claims 12 and 24 are objected to because of the following informalities: claim 12 reads “signalling” instead of signaling and claim 24 reads "Method" instead of "A method". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

6. Regarding claim 14, the specification does not teach how to take derivatives of the states of polarization, either a mathematical derivative or a derived property of the states. Therefore, there is no way for a person of ordinary skill reading the specification to know whether or not the applicant was in possession of the claimed invention.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 2, 4, 5, 6, 7, 8, 15, 25, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muralidharam Kodialam et al. (US Patent Application Publication No. 2002/0018264), referred herein as Kodialam, in view of Johannes Van Der Tol (US Patent No. 5,900,957), referred herein as Van Der Tol.

Regarding claims 1 and 18, Kodialam teaches a communication network arrangement for handling packets within optical or combined optical/electrical packet switched networks comprising, at least an ingress node adapted to multiplex optical packets (paragraph 28 teaches an ingress node and paragraph 25 teaches a WDM network wherein signals of different wavelengths are multiplexed together) and an egress node adapted to demultiplex received optical packets (paragraph 28 teaches an ingress node and paragraph 25 teaches a WDM network wherein a group of wavelengths multiplexed on the same fiber are demultiplexed), characterized in that the ingress node has means for transmitting packets of a first QoS class, and transmitting packets of a second QoS (paragraph 48 teaches QoS as a label in the transmitted packets based on their priority). However, Kodialam does not teach transmitting different QoS signals on different states of polarization. It is known in the art to transmit signals with different polarizations for determining label means. For example, Van Der Tol teaches a system wherein input packets to a node are split based on polarization (column 6, lines 1-13 teach the address signal having one polarization orthogonal to the payload, wherein the orthogonal signal can be easily split by a polarization beam splitter and interpreted). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teaching of Kodialam with the quick reading of header information such as QoS as taught by Van Der Tol for applying polarization, a physical quantity, as a basis for determining address or header information in the optical domain (column 3, lines 12-20 teach this advantage).

Regarding claims 2 and 19, Kodialam and Van Der Tol teach the limitations of claims 1 and 18. Van Der Tol further teaches a communication network arrangement according to claim 1, characterized in that the ingress node while transmitting said packets of said second type in said second state of polarization, has means for simultaneously transmitting a header in said first state of polarization (column 6, lines 44-67 teach the data signal and the address signal with orthogonal polarizations being simultaneously transmitted out). Therefore, it would have been obvious to further include Van Der Tol's teaching of transmitting the header in one state of polarization and the packet in another state for the advantages discussed in claims 1 and 18.

Regarding claims 4 and 21, Kodialam and Van Der Tol teach the limitations of claim 1. Van Der Tol further teaches a communication network arrangement characterized in that the second and first state of polarization are substantially orthogonal states (column 6, lines 1-13 teach that the data signal has an orthogonal polarization to the address information). Therefore, it would have been obvious to further include Van Der Tol's teaching of having orthogonal polarizations in order to provide the structure for the advantages discussed in claims 1 and 18.

Regarding claims 5 and 22, Kodialam and Van Der Tol teach the limitations of claims 1 and 18. Kodialam further teaches means for demultiplexing the received packets (paragraph 28 teaches an ingress node and paragraph 25 teaches a WDM network wherein a group of wavelengths multiplexed on the same fiber are demultiplexed), and means for multiplexing packets for forwarding (paragraph 28 teaches an ingress node and paragraph 25 teaches a WDM network wherein signals of

different wavelengths are multiplexed together). However, Kodialam does not teach demultiplexing or multiplexing by means of polarization or SOP alignment means for the received packets. Van Der Tol further teaches a communication network arrangement characterized in that the network arrangement further comprises at least one core node with SOP alignment means for the received packet (column 6, lines 44-50 teach a polarization beam splitter oriented so that the polarization components are split correctly). Therefore, it would have been obvious to further include Van Der Tol's teaching of aligning the polarizations correctly in order to provide the structure for the advantages discussed in claims 1 and 18.

Regarding claim 6, Kodialam and Van Der Tol teach the limitations of claim 1. Kodialam further teaches demultiplexing the received packets. However, Kodialam does not teach demultiplexing based on polarization. Van Der Tol further teaches a communication network arrangement wherein the network arrangement further comprises at least one core node adapted to split the received packets by polarisation and to separate packets according to the packets state of polarization (column 6, lines 42-52 teach a polarization beam splitter for separating the signal into its polarization components) and said at least one core node has a first optical switching matrix (column 6, lines 52-55 teach an optical switching matrix, a 2x2 switch) and a second electronic switching matrix (column 6, lines 52-55 teach an electronic address and controlling of the matrix). Therefore, it would have been obvious to further include Van Der Tol's teaching of having an optical and electric switching matrix for the received packets in order to provide the structure for the advantages discussed in claim 1.

Regarding claim 7, Kodialam and Van Der Tol teach the limitations of claim 6. Van Der Tol further teaches a communication network arrangement, characterized in that the first optical switching matrix is a wavelength router adapted to separate payload of packets of a first class, payload of a second class and header information of the second class (column 6, lines 52-67 teach a system wherein both payload and header signals are sorted through the switch based on header information). Therefore, it would have been obvious to further include Van Der Tol's teaching of sorting the payload and header through a switch in order to provide the structure for the advantages discussed in claim 1.

Regarding claim 8, Kodialam and Van Der Tol teach the limitations of claim 1. Van Der Tol further teaches a communication network arrangement, wherein the network arrangement further comprises at least one core node, said core node having at least one polarisation beam splitter (PBSI) and at least one optical demultiplexer (column 5, lines 54-65 teach an input port on the node which accepts signals from a packet transmitter that has an address signal A and a data signal I multiplexed together and demultiplexes them based on their polarization with a polarization beam splitter). Therefore, it would have been obvious to further include Van Der Tol's teaching of having a polarization beam splitter for the received packets in order to provide the structure for the advantages discussed in claim 1.

Regarding claim 15, Kodialam and Van Der Tol teach the limitations of claim 6. Van Der Tol further teaches a communication network arrangement characterized in that the at least one core node is adapted to switch packets electronically or optically

according to which type of class the packets are associated with (paragraph 23 teaches using either an electrical cross-connect or an optical cross-connect for the packets).

Regarding claim 25, Kodialam and Van Der Tol teach the limitations of claim 20. Kodialam further teaches a method characterized in that at the at least one core node in the optical packet switched network is executing time divisional multiplexing of received packets (paragraph 48 teaches sending the requests in time slots).

Regarding claim 26, Van Der Tol and Maher teach the limitations of claim 22. Van Der Tol further teaches a method characterized in that at least one core node in the optical packet switched network is SOP-aligning received packets (column 6, lines 44-50 teach a polarization beam splitter oriented so that the polarization components are split correctly). Therefore, it would have been obvious to further include Van Der Tol's teaching of aligning the polarization states with a beam splitter in order to provide the structure for the advantages discussed in claim 18.

Regarding claim 27, Kodialam and Van Der Tol teach the limitations of claim 22. Van Der Tol further teaches a method characterized in that when a first packet of a first type of class arrives at a switch the following steps are carried out: a controlling device registering that the first packet is present at the input (column 6, lines 52-55 teach a control unit for registering the packet), then delaying the first packet in a FDL in a first predetermined period of time (column 6, lines 57-62 teach a delay line for delaying the signal), and reserving an output where the first packet is directed to be transmitted (column 6, lines 63-67 teach determining an output port for transmitting the packet). Therefore, it would have been obvious to further include Van Der Tol's teaching of

registering, delaying and reserving an output for a packet in order to provide the structure for the advantages discussed in claim 18.

9. Claims 3, 20 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodialam and Van Der Tol in view of Mark Farries et al. (US Patent No. 6,819,872), referred herein as Farries.

Regarding claims 3 and 20, Kodialam and Van Der Tol teach the limitations of claims 1 and 18. However, they do not teach a communication network arrangement characterized in that said first and said second states of polarization are interchanged at the beginning of each packet. It is known in the art to interchange polarization states for each packet. For example, Farries teaches a system wherein polarizations are interchanged at the beginning of each packet (column 5, lines 12-35 teach a system wherein two orthogonally polarized beams are interleaved together so that the polarization is interchanged). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam and Van Der Tol with the polarization interchanging of Farries for obviating a requirement of polarization controllers and polarization maintaining fibers (the abstract teaches this advantage).

Regarding claim 29, Kodialam and Van Der Tol teach the limitations of claim 21. However, they do not teach a method characterized in that statistically multiplexed packets of the second type of class is interleaved with packets of the first QoS class,

and the packets of the first type of class using a predefined wavelength path within a communication network. It is known in the art to interleave signals with different polarizations (corresponding to different classes in this case). For example, For example, Farries teaches a system wherein polarizations are interleaved together (column 5, lines 12-35 teach a system wherein two orthogonally polarized beams are interleaved together so that the polarization is interchanged). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam and Van Der Tol with the polarization interchanging of Farries for obviating a requirement of polarization controllers and polarization maintaining fibers (the abstract teaches this advantage).

10. Claims 10, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodialam and Van Der Tol in view of Xiaojun Fang (US Patent Application Publication No. 2003/0026250), referred herein as Fang.

Regarding claims 10 and 30, Kodialam and Van Der Tol teach the limitations of claims 1 and 18. However, they do not further teach a communication network arrangement characterized in that the first QoS class represents GS- packets and the second QoS class represents BE-packets. It is well-known in the art to use both best effort service and guaranteed service. For example, Fang teaches a system that utilizes both best effort service and guaranteed service (paragraph 7 teaches a system with IP traffic for best-effort service and traffic for guaranteed service). Therefore, it

would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam and Van Der Tol with the best effort and guaranteed service of Fang for the predictable result of assuring important traffic has guaranteed delivery whereas non-critical traffic is delivered with a best effort to ensure that the guaranteed service has priority.

Regarding claim 31, Kodialam, Van Der Tol and Fang teach the limitations of claim 30. Van Der Tol further teaches a method characterized in forwarding packets electronically and optically (column 6, lines 52-55 teach an optical switching matrix, a 2x2 switch and an electronic address and controlling of the switching matrix) and Fang teaches, for reasons whose advantages are discussed in claim 10, switching BE and GS packets (paragraph 7 teaches a system with IP traffic for best-effort service and traffic for guaranteed service). However, they do not teach switching GS-packets optically and BE-packets electronically. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to choose to switch GS-packets optically and BE-packets electronically because there are only a finite number of ways to switch (both optically, both electronically, or one optically with the other electronically) and a person of ordinary skill would have good reason to pursue these known technical options within his or her grasp.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kodialam, Van Der Tol and Farries and further in view of Wolfgang Fischler et al. (US Patent Application Publication No. 2008/0019692), referred herein as Fischler.

Regarding claim 11, Kodialam and Van Der Tol teach the limitations of claim 1. Van Der Tol further teaches a communication network arrangement characterized in that the ingress node has means for separating header and payload for BE-packets by state of polarization (column 6, lines 44-67 teach a polarization beam splitter that splits a signal into its address and payload). Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to further include Van Der Tol's teaching of separating header and payload for BE-packets based on polarization in order to provide the structure for the advantages discussed in claim 1. However, they do not teach means for separating packets by changing state of polarisation at the beginning of every new packet. It is known in the art to interchange polarization states for each packet. For example, Farries teaches a system wherein polarizations are interchanged at the beginning of each packet (column 5, lines 12-35 teach a system wherein two orthogonally polarized beams are interleaved together so that the polarization is interchanged). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam and Van Der Tol with the polarization interchanging of Farries for obviating a requirement of polarization controllers and polarization maintaining fibers (the abstract teaches this advantage). However, Kodialam, Van Der Tol and Farries do not teach using at least one polarisation beam splitter (PBS) adapted to receive a WDM-signal with a plurality of wavelengths and wherein the polarisation beam splitter (PBS) is adapted to separate header and payload by using the polarisation beam

splitter per wavelength (although Van Der Tol does teach the polarization beam splitters for a single wavelength). It is well-known in the art to use wavelength routing in optical networks with differing polarizations. For example, Fischler teaches a system wherein signals of differing polarization are multiplexed by wavelength (paragraph 9 teaches switching wavelength groups wherein the wavelength groups are also polarized). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam, Van Der Tol and Farries with the wavelength routing of Fischler for the predictable result of transmitting more information by using a plurality of wavelengths to distinguish the information channels.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Der Tol and Maher in view of Christopher Fludger et al. (US Patent Application Publication No. 2004/0218933), referred herein as Fludger.

Regarding claim 12, Kodialam and Van Der Tol teach the limitations of claim 1. However, they do not teach a communication network arrangement characterized in that the network arrangement is adapted for use with more than two states of polarisation for signaling traffic. It is well-known in the art to use more than two states of polarization for signaling traffic. For example, Fludger teaches a system wherein more than two states of polarization are used for communications (paragraph 20 teaches linear, circular and elliptical polarizations for signals). Therefore, it would have been

obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam and Van Der Tol with the multiple polarizations of Fludger for maximizing polarization diversity so that signals can be polarization multiplexed for additional capacity (paragraph 42 teaches this advantage).

13. Claims 13, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Der Tol and Maher in view of Fischler.

Regarding claim 13, Kodialam and Van Der Tol teach the limitations of claim 5. Kodialam further teaches a communication network arrangement characterized in that the ingress node and the at least one core node comprises an optical packet switched module (paragraph 28 teaches a flow of data at the ingress and egress nodes of the packet network). However, they do not teach this module attached to a S-WRON node. It is well-known in the art to use wavelength routing in optical networks with differing polarizations. For example, Fischler teaches a system wherein signals of differing polarization are multiplexed by wavelength (paragraph 9 teaches switching wavelength groups wherein the wavelength groups are also polarized). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam and Van Der Tol with the wavelength routing of Fischler for the predictable result of transmitting more information by using a plurality of wavelengths to distinguish the information channels.

Regarding claim 16, Kodialam and Van Der Tol teach the limitations of claim 15. Kodialam further teaches a communication network arrangement characterized in that there is at least one core node of the network adapted to switch packets electronically (paragraph 23 teaches an electronic cross-connect for switching the packets electronically). However, they do not teach a number of wavelengths reserved for the at least one core node. It is well-known in the art to use wavelength routing in optical networks with differing polarizations. For example, Fischler teaches a system wherein signals of differing polarization are multiplexed by wavelength (paragraph 9 teaches switching wavelength groups wherein the wavelength groups are also polarized). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam and Van Der Tol with the wavelength routing of Fischler for the predictable result of transmitting more information by using a plurality of wavelengths to distinguish the information channels.

Regarding claim 17, Kodialam and Van Der Tol teach the limitations of claim 15. Kodialam further teaches a communication network arrangement characterized in that there is at least one core node of the network adapted to switch packets optically (paragraph 23 teaches an embodiment with an optical crossconnect for switching the packets). However, they do not teach a number of wavelengths reserved for the at least one core node. It is well-known in the art to use wavelength routing in optical networks with differing polarizations. For example, Fischler teaches a system wherein signals of differing polarization are multiplexed by wavelength (paragraph 9 teaches switching wavelength groups wherein the wavelength groups are also polarized).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam and Van Der Tol with the wavelength routing of Fischler for the predictable result of transmitting more information by using a plurality of wavelengths to distinguish the information channels.

14. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodialam and Van Der Tol in view of Robert Maher et al (US Patent No. 7,058,974), referred herein as Maher.

Regarding claim 23, Kodialam and Van Der Tol teach the limitations of claim 18. Van Der Tol further teaches a system wherein packets of the first kind are routed using a predefined route within a communication network, and packets of the second kind are switched by a packet switch module (column 6, lines 63-67 teach routing the signal to either a first output port to the network or a second output port to a detector). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to further include Van Der Tol's teaching of routing through predefined routes or packet switching in order to provide structure for the advantages discussed in claim 18. However, they do not teach the packets being sorted based on the class of quality. Maher teaches separating packets for routing based on their quality of service (column 7, lines 1-8 teach routing information onto different paths based on QoS). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam and Van Der

Tol with Maher's teaching of separating based on QoS for transmitting as much data as possible in the traffic flow (column 7, lines 44-53 teach this advantage).

Regarding claim 24, Kodialam and Van Der Tol and Maher teach the limitations of claim 18. However, they do not teach separating packets into two classes at the ingress node based on header information. Maher further teaches a method characterized in that at the ingress node packets are separated into two classes by setting switches based on header information from said packets (column 7, lines 26-37 teach separating the stream of packets based on QoS of the header). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to further include Maher's teaching for transmitting as much data as possible in the traffic flow (column 7, lines 44-53 teach this advantage).

15. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kodialam and Van Der Tol in view of Takahiro Koga (US Patent Application Publication No. 2002/0141446), referred herein as Koga.

Regarding claim 28, Kodialam and Van Der Tol and Maher teach the limitations of claim 27. However, they do not teach a method characterized in defining the first predefined period of time to be longer than a second period of time, defining the second period of time using a packet with a lower QoS level than the first packet where the second packet is of a maximum allowed size. It is known in the art to use different lengths of time for packet delay based on the QoS and setting the packets to different

sizes including a maximum allowed size. For example, Koga teaches a method wherein different lengths of time for packet delay are used based on the QoS (paragraph 49 teaches a delay time based on the QoS of the packet) and the packets are set to different sizes including a maximum allowed size (paragraph 51 teaches the QoS allocating a maximum packet length). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teachings of Kodialam and Van Der Tol with the delay time allocations and packet length limits of Koga for reserving the necessary bandwidth resources on a network where bandwidth is not guaranteed (paragraph 54 teaches this advantage).

Allowable Subject Matter

16. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. Regarding claim 9, Van Der Tol and Maher teach the limitations of claim 1. However, they fail to teach the core node having two optical demultiplexers with three wavelength converters, one of which forwards packets to a multiplexer.

Conclusion

18. Any response to this Office Action should be faxed to (571) 273-8300 or mailed to:

Commissioner for Patents,
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cody W. Lamb whose telephone number is (571)270-1797. The examiner can normally be reached on Monday - Friday 8 a.m. - 5 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cody W. Lamb/
Examiner, Art Unit 2613
01 October 2008

/Kenneth N Vanderpuye/
Supervisory Patent Examiner, Art Unit 2613